



ELSEVIER

Applied Surface Science 229 (2004) v–vii

applied
surface science

www.elsevier.com/locate/apsusc

Contents

Comment

Comment to "Copper chemical vapour deposition on organosilane-treated SiO₂ surfaces". [Applied Surface Science 222 (2004) 102–109]

N.G. Semaltianos, J.-L. Pastol and P. Doppelt

1

Short communications

Nano-structured films formed on the AISI 329 stainless steel by Nd-YAG pulsed laser irradiation

J. Yang, J. Lian, Q. Dong and Z. Guo

2

Fabrication of large-scale α -Si₃N₄ nanotubes on Si(1 1 1) by hot-wall chemical-vapor-deposition with the assistance of Ga₂O₃

Q. Wei, C. Xue, Z. Sun, H. Zhuang, W. Cao, S. Wang and Z. Dong

9

Morphological and spectroscopic analyses of poly [N-vinylcarbazole-co-vinylbenzenesulfonic acid] copolymer electrografted on carbon fiber: the effect of current density

A. Sezai Sarac, M. Serantoni, S.A.M. Tofail and V.J. Cunnane

13

Kinetics of bulk point defects in the growth of nanocavities in crystalline Ge

J.C. Kim and Y.-W. Kim

19

Effect of fluorine doping on the properties of tin oxide based powders prepared via Pechini's method

M.C. Esteves, D. Gouvêa and P.T.A. Sumodjo

24

Nanometer silicon thin films prepared by HF sputtering at low temperature

Z. Zhao, R. Cui, F. Meng, B. Zhao, H. Yu and Z. Zhou

30

Calculation of the surface energy of FCC metals with modified embedded-atom method

J.-M. Zhang, F. Ma and K.-W. Xu

34

Adsorption and decomposition of Mo(CO)₆ on thin Al₂O₃ films: fabrication of metallic molybdenum model catalyst

Z. Jiang, W. Huang, J. Jiao, H. Zhao, D. Tan, R. Zhai and X. Bao

43

Emission ability of La–Sc–Mo cathode

J. Yang, Z. Nie, X. Xi and Y. Wang

51

Investigation of graded Ni–Cu–P–PTFE composite coatings with antiscaling properties

Q. Zhao and Y. Liu

56

Direct hydrogen production from alcohol using pulse-electron emission in an unsymmetrical electric field

H. Matsuura, T. Tanikawa, H. Takaba and Y. Fujiwara

63

Elastic electron backscattering from surfaces in selected angular ranges

A. Jablonski, J. Zemek and P. Jiricek

67

Wear resistance of laser clad Ti₂Ni₃Si reinforced intermetallic composite coatings on titanium alloy

Y. Wang and H.M. Wang

81

Spectroscopic and electrochemical characterisation of thin cathodic plasma polymer films on iron

V. Barranco, P. Thiemann, H.K. Yasuda, M. Stratmann and G. Grundmeier

87

Orthorhombic-phase GaAs nanoparticles prepared by an electrochemical technique J. Nayak and S.N. Sahu	97
Studies on polycrystalline ZnS thin films grown by atomic layer deposition for electroluminescent applications Y.S. Kim and S.J. Yun	105
Effect of alloying elements (Ti, Nb, Mn and P) and the water vapour content in the annealing atmosphere on the surface composition of interstitial-free steels at the galvanising temperature S. Feliu Jr. and M.L. Pérez-Reventa	112
Enzyme-mediated radical initiation of AM graft onto the HDPE film J. Zhao, Z. Xie, Z. Guo, G. Liang and J. Wang	124
Stabilisation of tetragonal zirconia in oxidised ZrSiN nanocomposite coatings D. Pilloud, J.F. Pierson, M.C. Marco de Lucas and M. Alnot	132
Microstructural evolution and phase development of Nb and Y doped TiO ₂ films prepared by RF magnetron sputtering S.-F. Wang, Y.-F. Hsu, R.-L. Lee and Y.-S. Lee	140
Characterisation of laser ablation of silicon using a Gaussian wavefront and computer generated wavefront reconstruction E. Coyne, J.P. Magee, P. Mannion, G.M. O'Connor and T.J. Glynn	148
A study of Cs adsorption on Se-covered Si(1 0 0) 2 × 1 surfaces A.K. Sotiropoulos and M. Kamaratos	161
Electrochemical characterization of copper chemical mechanical planarization in KIO ₃ slurry T. Du, D. Tamboli, Y. Luo and V. Desai	167
Surface tension measurement of fuels and alkanes at high pressure under different atmospheres J. Dechoz and C. Rozé	175
Study of molecular orientational order in the Langmuir monolayer. Experiment and model calculation J. Vajda, M. Weis, D. Barančok, J. Cirák and P. Tomčík	183
Carbon induced metal dusting of iron–nickel–chromium alloy surfaces: a scanning auger microscopy study G. Palasantzas, H.J. Kooij and J.Th.M. DeHosson	190
Influence of organic solvents on interfacial water at surfaces of silica gel and partially silylated fumed silica V.V. Turov, V.M. Gun'ko, M.D. Tsapko, V.M. Bogatyrev, J. Skubiszewska-Zięba, R. Lebeda and J. Ryzkowski	197
Corrosion inhibition of copper by new triazole phosphonate derivatives S. Ramesh, S. Rajeswari and S. Maruthamuthu	214
Synchrotron photoemission spectroscopy study of ammonium hydroxide etching to prepare well-ordered GaAs(1 0 0) surfaces M.V. Lebedev, D. Ensling, R. Hunger, T. Mayer and W. Jaegermann	226
Effect of reactive element oxide coating on the high temperature oxidation behaviour of FeCrAl alloys R. Cuffe, H. Buscail, E. Caudron, F. Riffard, C. Issartel and S. El Messiki	233
Charge compensation of composite materials using Os coating in X-ray photoelectron spectroscopy Y. Mori and S. Tanemura	242
Tribological properties changes of H13 steel induced by MEVVA Ta ion implantation Y. Jianhua and Z. Tonghe	249
Enhanced nucleation and post-growth investigations on HFCVD diamond films grown on silicon single crystals pretreated with Zr:diamond mixed slurry A.K. Dua, M. Roy, J. Nuwad, V.C. George and S.N. Sawant	254
High-resolution X-ray photoelectron spectroscopy of Al ₁ Ga _{1-x} Sb A.H. Ramelan, K.S.A. Butcher, E.M. Goldys and T.L. Tansley	263
Femtosecond pulsed laser ablation of metal alloy and semiconductor targets T.W. Trelenberg, L.N. Dinh, B.C. Stuart and M. Balooch	268

Synthesis and optical properties of ZnO nanocluster porous films deposited by modified SILAR method X.D. Gao, X.M. Li and W.D. Yu	275
The effects of stabilizers on the bath stability of electroless Ni deposition and the deposit W.J. Cheong, B.L. Luan and D.W. Shoesmith	282
Electron induced reduction on AlF_3 thin films L.I. Vergara, R. Vidal and J. Ferrón	301
High-quality ZnO thin films prepared by low temperature oxidation of metallic Zn J. Zhao, L. Hu, Z. Wang, Y. Zhao, X. Liang and M. Wang	311
A computational analysis of the carbon-nanotube-based resonant-circuit sensors M. Grujicic, G. Cao and W.N. Roy	316
Valence bands offset between depleted semiconductors measured by photoelectron spectroscopy S. Kumar, S.N. Jha, Jagannath, T. Ganguli, S.V.N. Bhaskara Rao and N.C. Das	324
The morphology of an InP wetting layer on GaAs M. Mattila, M. Sopanen and H. Lipsanen	333
Indium concentration influence on PL spatial inhomogeneity in InGaN single quantum well structures detected by original low-cost near-field probes R. Micheletto, N. Yoshimatsu, A. Kaneta, Y. Kawakami and S. Fujita	338
Reactivity of TiO_2 with hydrogen and deuterium Y. Yang, M. Sushchikh, G. Mills, H. Metiu and E. McFarland	346
Surface oxygenation of polypropylene using an air dielectric barrier discharge: the effect of different electrode-platen combinations D.J. Upadhyay, N.-Y. Cui, C.A. Anderson and N.M.D. Brown	352
Microsecond-resolved imaging of laser ablation at solid-liquid interface: investigation of formation process of nano-size metal colloids T. Tsuji, Y. Tsuboi, N. Kitamura and M. Tsuji	365
Polymerization and redox behavior of polypyrrole (PPy) films by in situ EQCM and PT techniques C. Zhao and Z. Jiang	372
Self-assembled monolayers of 3-MPT and its mixed-monolayers with alkanethiol on silver: studies by XPS and electrochemical methods Y. Wang, Q. Yu, Y. Zhang, Z. Guo, N. Gu and K.-D. Wesche	377
Characterization of titanium chromium nitride nanocomposite protective coatings S.M. Aouadi, K.C. Wong, K.A.R. Mitchell, F. Namavar, E. Tobin, D.M. Mihut and S.L. Rohde	387
Surface properties of polyaniline/nano- TiO_2 composites X. Li, G. Wang, X. Li and D. Lu	395
Formation of intermetallic phases during ageing of Zn electroplate on the Cu substrate R. Juškėnas, V. Pakštas, A. Sudavičius, V. Kapočius and V. Karpavičienė	402
Author Index	I
Subject Index	V



